

104S Abstracts

Score (VCSS) and PTS scoring put forth by Villalta et al (PTSV), commonly used scoring systems, were used to appraise PTS at 3, 6, 12, 18 and 24 months following diagnosis of DVT. Cumulative incidence (CI) served as the primary outcome measure.

Results: As measured by VCSS, the GCS (study) group had a cumulative incidence of PTS that was twice that of the control group. When PTSV was used as the instrument of measurement, a significant difference in cumulative incidence of PTS in the GCS and control groups was not found. The break up of incidence at various time intervals is depicted in table 1.

Conclusions: Use of knee length graduated compressive stockings does not appear to prevent development of post thrombotic syndrome. When PTS is assessed by the VCSS instrument the use of stockings seem to contribute to the incidence of the syndrome.

Table 1.

Month	VCSS (Incidence of PTS)		PTSV (Incidence of PTS)	
	GCS Group	Control Group	GCS Group	Control Group
3	58%	36%	50%	72%
6	56%	17%	63%	60%
12	59%	15%	59%	46%
18	73%	33%	59%	52%
24	68%	8%	42%	54%

Author Disclosures: A. Jayaraj: Nothing to disclose; M. Meissner: Jobst - partial funding for study, Research Grants; C. Natiello: Nothing to disclose; S. Nicholls: Nothing to disclose.

VS7.

Video Presentation

Resection of Vena Cava for Invasion by Renal Cell Carcinoma

R Clement Darling, Benjamin B. Chang, Sean P. Roddy, Manish Mehta, Philip S. Paty, Kathleen J. Ozsvath, Paul B. Kreienberg, Yaron Sternbach, John B. Taggart, Dhiraj M. Shah. Vascular Surgery, Albany Medical Center/Albany Medical College, Albany, NY

Background: Up to 10% of patients with renal cell carcinoma will have extension into the inferior vena cava. In those cases, a vascular surgeon is usually asked to assist the urologist in resection of the vena cava and removal of the intra caval thrombus.

Technical Description: This video will outline the operative approach for isolation of the suprahepatic cava including the hepatic veins, the infrahepatic and infrarenal vena cava, and the steps involved with removal of the thrombus by milking it back through the cava and resection of the vena cava with non stenotic reconstruction. We have performed 69 reconstructions with no perioperative deaths; 80% of these patients required suprahepatic control and 10% required median stenotomy for extension of the thrombus into the atrium. The operative technique will be

illustrated and should be valuable for all surgeons who participate in this operation.

Author Disclosures: B. B. Chang: Nothing to disclose; R. Darling: Nothing to disclose; P. B. Kreienberg: Nothing to disclose; M. Mehta: Nothing to disclose; K. J. Ozsvath: Nothing to disclose; P. S. Paty: Nothing to disclose; S. P. Roddy: Nothing to disclose; D. M. Shah: Nothing to disclose; Y. Sternbach: Nothing to disclose; J. B. Taggart: Nothing to disclose.

SS34.

Clinical Research Review

Anticoagulation for Calf Deep Venous Thrombosis: A Systematic Review and Meta-Analysis

Randall R. De Martino¹, Jessica B. Wallaert², Ana P. Rossi³, Alicia J. Zbehlik⁴, Daniel B. Walsh¹. ¹Section of Vascular Surgery, Dartmouth-Hitchcock Medical Center, Lebanon, NH; ²Department of Surgery, Dartmouth-Hitchcock Medical Center, Lebanon, NH; ³The Dartmouth Institute for Health Policy and Clinical Practice, Lebanon, NH; ⁴Department of Medicine, Dartmouth-Hitchcock Medical Center, Lebanon, NH

Objectives: Review evidence for anticoagulation treatment of calf deep venous thrombosis (CDVT).

Methods: Medline, Cochrane Library, meeting abstracts, and expert opinion were reviewed. Criteria for studies selected were: (1) Adults with CDVT by ultrasound or venogram, (2) comparisons of patients treated with anticoagulation (vitamin K antagonist or heparin) for ≥ 30 days to controls (not anticoagulated), (3) ≥ 1 month follow-up. Primary outcome was pulmonary embolus (PE). Secondary outcomes were clot propagation, post-thrombotic syndrome, mortality, and bleeding. Two independent reviewers extracted data from qualifying articles. Quality assessment was performed using standardized scales. Meta-analyses were performed by generating pooled odds ratios with subgroup and sensitivity analyses.

Results: We reviewed 2,328 studies, including 148 full text articles. Eight studies met selection criteria (2 RCTs and 6 cohort) providing 126 anticoagulated patients and 378 controls. Most studies were of poor methodological quality and did not report all outcomes. Rates of PE (OR 0.12, 95% CI 0.02-0.77, $p=0.03$) and clot propagation (OR 0.29, 95% CI 0.14-0.62, $p=0.04$, Figure 1) were significantly lower in patients treated with anticoagulation. Due to heterogeneity, results for bleeding complications and mortality could not be pooled, but favored controls or anticoagulation respectively. No data on post-thrombotic syndrome were available.

Conclusions: Anticoagulation for CDVT may decrease clinically important outcomes such as PE and clot propagation. Treatment-related complications have been poorly documented and studies are of poor methodological quality. More rigorous studies would improve evidenced based treatment for calf vein DVT.